

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) A self diagnostic solid state relay, comprising:
 - a three dimensional housing enclosing a printed circuit board;
 - a field effect transistor, at least one female circuit board terminal, and at least ~~one~~ two LED elements being electrically communicable with ~~a first side of~~ said printed circuit board and located on a first side of said printed circuit board, said LEDs being viewable from an exterior location of said housing;
 - a fuse engageable with said at least one female terminal through an opening defined in said housing;
 - a plurality of male circuit board terminals being in electrical communication with ~~a second side of~~ said printed circuit board and located on a second side of said printed circuit board, and extending from further selected exterior locations of said housing, said field effect transistor, LED elements, fuse and male and female terminals in electrical communication via the printed circuit board; and
 - a first circuit switching condition resulting in a first illuminating depiction of ~~said at least one~~ LED element and indicating an open circuit operating condition of said relay, a second circuit switching condition resulting in a second illuminating depiction of ~~said at least one~~ another LED element and indicating a partially open circuit operating condition.

2. (Original) The relay as described in claim 1, said at least one LED further comprising first and second LED elements electrically communicable with said circuit board and viewable from respective first and second exterior locations of said housing.

3. (Original) The relay as described in claim 2, said three dimensional housing having a specified shape and size and including at least a top face, said first and second LED elements being visible from opposite edge locations of said top face.

4. (Original) The relay as described in claim 2, said first LED illuminating according to a first selected color and upon occurrence of said open circuit operating condition, said second LED illuminating according to a second selected color and upon occurrence of said partially open circuit condition.

5. (Original) The relay as described in claim 3, said field effect transistor further comprising a MOSFET transistor.

6. (Original) The relay as described in claim 1, said at least one female circuit board terminal further comprising first and second female terminals, said fuse further comprising first and second spaced apart and extending blade portions engageable, respectively, with said first and second female terminals.

7. (Original) The relay as described in claim 5, further comprising an over-current protection device in operative communication with an output of said MOSFET, said first LED being connected in parallel configuration with said current protection device and emitting said first depiction upon said current protection device ceasing to pass current.

8. (Original) The relay as described in claim 7, said current protection device further comprising a fuse.

9. (Original) The relay as described in claim 5, further comprising a differential amplifier electrically communicating in parallel with an over-current protection device.

10. (Original) The relay as described in claim 9, further comprising said differential amplifier multiplying a voltage present across said current protection device and outputting a representative signal to a comparator.

11. (Original) The relay as described in claim 10, further comprising said second LED being connected to an output of said comparator, and whereupon said comparator receiving a signal from said differential amplifier which meets a

predetermined threshold, said comparator switches state so that current passes to said second LED and emits said second depiction

12. (Original) The relay as described in claim 1, said three dimensional housing further comprising a substantially cubicle shape.

13. (Currently amended) A self diagnostic solid state relay, comprising:
a three dimensional polygonal shaped housing enclosing a printed circuit board;

a MOSFET field effect transistor, a pair of female circuit board terminals, and a pair of LED elements being electrically communicable with ~~a first side of~~ said printed circuit board and located on a first side of said printed circuit board, said LED elements being viewable from an exterior location of said housing;

a fuse including first and second spaced apart and extending blade portions engageable, respectively, with said first and second female terminals through openings defined in said housing;

a plurality of male circuit board terminals being in electrical communication with ~~a second side of~~ said printed circuit board and located on a second side of said printed circuit board and extending from further selected exterior locations of said housing, said MOSFET, LED elements, fuse and male and female terminals in electrical communication via the printed circuit board; and

a first circuit switching condition resulting in a first illuminating depiction of ~~said first~~ one LED element and indicating an open circuit operating condition of said relay, a second circuit switching condition resulting in a second illuminating depiction of said ~~second~~ other LED element and indicating a partially open circuit operating condition.

Amendments to the Drawings

The attached replacement drawing sheet includes changes to Figs. 3 and 5. The changes are marked in red.

The drawings were objected to as failing to comply with 37 CFR 1.84 (p) (4) because reference character "164" on Figure 6 has been used to designate both a first LED (red) and a line connecting components 144 and 146 of dual operational amplifier.

Figure 5 was objected to because it was unclear if a cathode of diode 64 is tied to a line between fuse 122 and terminal 130 or has connection only to resistor 142.

Figure 3 and description indicate existence of one MOSFET (52). The circuitry presented on Fig. 5 and 6 indicate existence of at least two MOSFET.

The drawings have been amended to overcome the Examiner's objections.

Attachment: One Replacement Drawing Sheet of Figs. 3-5 with changes to Figs. 3 and 5 marked in red.